
Reproductive Health

Social and Behavioral Science Research (SBSR)

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Innovating and validating measures of complex concepts

Evidence Project

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LEARNINGS FROM THE EVIDENCE PROJECT

Innovating and validating measures of complex concepts

Over the past several decades, a number of measures have been developed to assess complex concepts including quality of care (QoC) for family planning (FP) services, anticipated stigma, and gender and power. These measures may predict uptake of health services, contraceptive continuation, and other health-seeking behaviors. Use of these measures may be limited because they are often lengthy and have not undergone extensive assessments for reliability and validity. The Evidence Project validated existing measures of QoC for FP and developed a new, shorter measure of QoC; designed and validated a measure of anticipated stigma; and created a database of existing measures of gender and power.

Quality of care of family planning services

While there is substantial evidence suggesting that QoC impacts contraceptive uptake and continuation, a range of QoC measures have been used, making QoC difficult to compare across contexts. The Evidence Project undertook several studies in order to validate measures of QoC and test how well the measure predicts contraceptive continuation.

The Evidence Project piloted a 22-item QoC measure by selecting questions from earlier studies, which had shown positive relationships between QoC and contraceptive continuation. The measure was designed to assess four domains of QoC from the client's perspective: 1) respectful care, 2) method selection, 3) effective use of method selected, and 4) continuity of contraceptive use and care (see Box 1 for definitions). These 22 items were tested

BOX 1: DOMAINS OF QOC¹

1. Respectful care: interpersonal relations between provider and client; treating client with dignity and respect; ensuring audiovisual privacy and confidentiality
2. Method selection: solicitation of information from client about reproductive intentions, previous contraceptive use, and other domains; provision of information by provider on various FP methods
3. Effective use: information given about how to use the method, potential side effects, how to manage side effects, and warning signs
4. Continuity of contraceptive use and care: information given on whether to return for follow-up, other sources of FP supply, and possibility of switching methods

in a longitudinal study of contraceptive use dynamics in India. Exploratory factor analysis was used to examine the psychometric properties of the items and factors. The 22 items were reduced to 10. Both measures' reliability was assessed using Cronbach's alpha. Overall QoC scores were calculated for both the 22- and 10-items measures, and then categorized into low, medium, and high. Women who reported medium or high QoC (as measured by both the 22- and 10-item measures) at contraceptive initiation were significantly more likely to be using a modern contraceptive method three months later, compared to women who received low QoC (Figure 1).

OUR IMPLEMENTATION SCIENCE APPROACH

The Evidence Project used implementation science (IS)—the strategic generation, translation, and use of evidence—to strengthen, scale-up, and sustain voluntary family planning (FP) services.

Our IS approach was driven by collaboration with partners to: (1) define research priorities; (2) implement research activities; and (3) use evidence for decision-making.

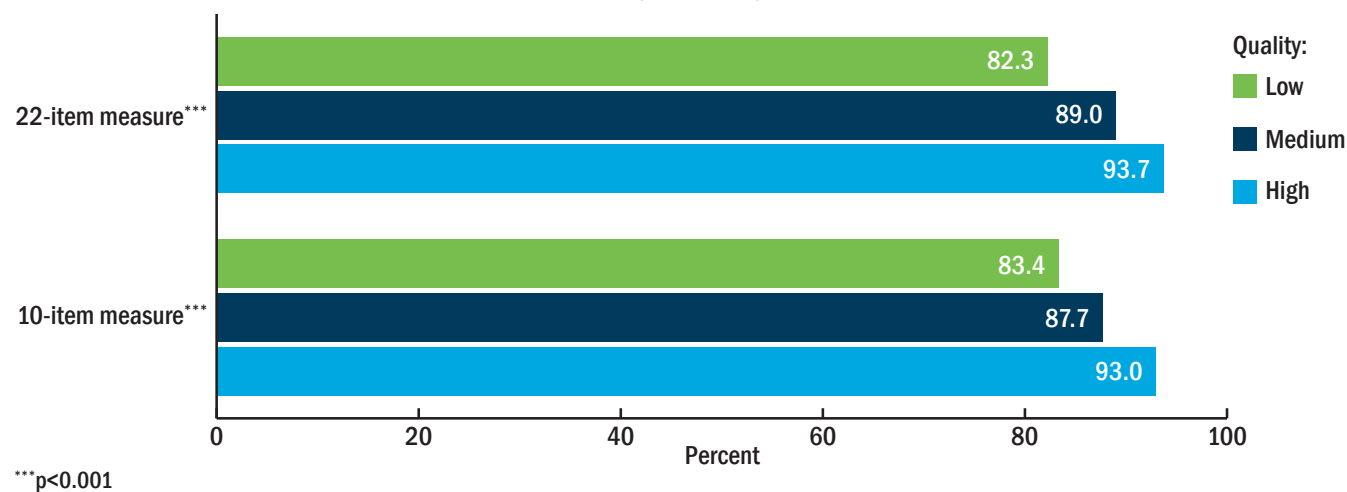
This brief is part of a series of briefs synthesizing evidence and lessons learned through the project. Other briefs include:

- Expanding access and method choice through private sector provision and self-administered injectables
- Evidence for expanding access to voluntary FP through workplace interventions

These briefs and all other Evidence Project publications can be found at: <http://evidenceproject.popcouncil.org/>.

The 10-item version adequately measured QoC, making it ideal for routine data collection and monitoring of programs. In Burkina Faso and Mali, the Evidence Project is exploring how to use these measures to routinely monitor QoC for FP services in the public sector and through performance-based financing programs. The 22-item measure is a more comprehensive way to measure QoC, and is best suited for more specialized studies.

FIGURE 1. MODERN METHOD CONTINUATION 3 MONTHS LATER BY QUALITY COMPOSITE SCORE AMONG WOMEN AGED 15-49 IN INDIA (N=2,306)



Method Information Index Plus

The Method Information Index (MII) is a measure designed to capture informed choice at FP method initiation and is a core indicator to monitor progress toward national and international FP goals. The MII is operationalized as the percentage of current FP users who report being told about 1) other methods, 2) the side effects of the method selected, and 3) how to manage side effects at the time they adopted their current method. Using the same longitudinal study in India, the Evidence Project assessed the value of adding a fourth question to assess whether the FP client was told about the possibility of switching to a different contraceptive method if the current method was no longer suitable. With the addition of this fourth measure, the MII was more predictive of contraceptive continuation than the three-item MII. The MIIplus (four-item measure) has been added to the Demographic and Health Surveys and to Performance Monitoring for Action Surveys to routinely measure informed choice across countries and over time.

More information on the QoC measures is available in [“Metrics for monitoring and improving quality of care in family planning”](#) brief.

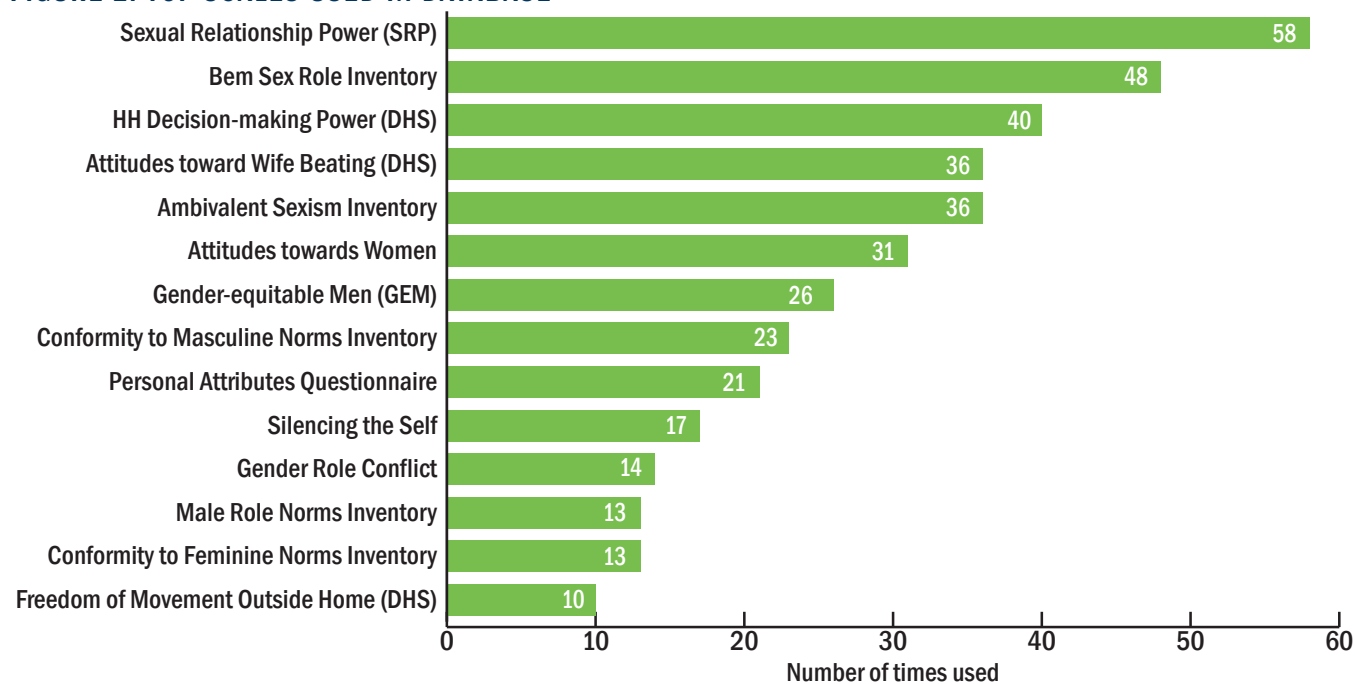
Anticipated stigma

The Evidence Project conducted a study among married 15- to 24-year-old females in Ethiopia with a demand (met and unmet need) for FP to better understand how



anticipated stigma influences voluntary FP use. The study included five items of anticipated stigma. Results of the study found that overall, 55 percent of respondents agreed with at least one item of the anticipated stigma scale. Furthermore, youth who answered positively on at least one item of anticipated stigma were significantly more likely to have an unmet need for FP. The association between anticipated stigma and unmet need remained significant even after adjusting for other known barriers to FP use. While further work should be done to see whether anticipated stigma predicts met and unmet need, results from this study suggest anticipated stigma is potentially a significant barrier to satisfying demand for FP. More information on this anticipated stigma tool is available in [“Measurement of anticipated stigma: A barrier to family planning use among married youth”](#) brief.

FIGURE 2. TOP SCALES USED IN DATABASE



Gender and power metrics

By systematically searching five electronic databases, supplemented by hand searches of specific journals and conference paper repositories for relevant titles, the Evidence Project compiled a database of scales and measures to be used by researchers and program implementers to measure gender and power. The database now houses over 600 unique measures, many tested in multiple settings and used in many studies (Figure 2). The database includes multi-item scales and single-item questions that reflect gender norms, personal views or beliefs about gender roles and norms, gender role stress, gendered-dynamics, power and control in relationships, and individual-level agency and self-efficacy, among others. The Gender and Power Metrics database provides information on the settings and populations where gender and power measures have been implemented, references for the published articles, as well as extracted information on scale psychometric properties and, where available, the question(s) that comprise the measure. In cases where gender or power scales were measured in association with family planning or IPV outcomes, the database provides additional information regarding the quantitative association between both constructs. The database is open-access and can be explored here: <https://gendermetrics.popcouncil.org/>, and more information about the database is available in “Gender and Power Metrics Database: A living database of scales that have been used to measure constructs of gender, agency, power, and control” brief.

Reference

1. Jain, Anrudh K., John Townsend, and Saumya RamaRao. 2018. “Proposed metrics to measure quality: An overview,” *Working Paper no. 3*, prepared for the Measuring and Monitoring Quality of Care Project. New York: Population Council.

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FURTHER RESOURCES

Quality of care

Jain, A., K. Aruldas, A. Mozumdar, E. Tobey, & R. Acharya. 2019. “Validation of two quality of care measures: Results from a longitudinal study of reversible contraceptive users in India,” *Studies in Family Planning* 50(2): 179–193. doi: 10.1111/sifp.12093

Jain, A., K. Aruldas, E. Tobey, A. Mozumdar, & R. Acharya. 2019. “Adding a question about method switching to the method information index is a better predictor of contraceptive continuation,” *Global Health: Science and Practice* 7(2): 289–299. doi: 10.9745/GHSP-D-19-00028

Anticipated stigma

Jain, A., H. Ismail, E. Tobey, & A. Erulkar. 2019. “Stigma as a barrier to family planning use among married youth in Ethiopia,” *Journal of Biosocial Science* 51(4): 505–519. doi: 10.1017/S0021932018000305

Gender and power

McCarthy, K. J., R. Mehta, & N. A. Haberland. 2018. “Gender, power, and violence: A systematic review of measures and their association with male perpetration of IPV,” *PLoS One* 13(11). doi: 10.1371/journal.pone.0207091

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The Evidence Project uses implementation science—the strategic generation, translation, and use of evidence—to strengthen and scale up family planning and reproductive health programs to reduce unintended pregnancies worldwide. The Evidence Project is led by the Population Council.

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